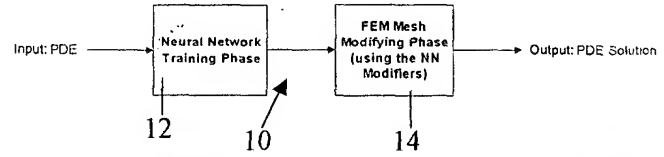
Neural Network Time Series Forecasting of Finite-Element Mesh Adaptation

Fig. 1



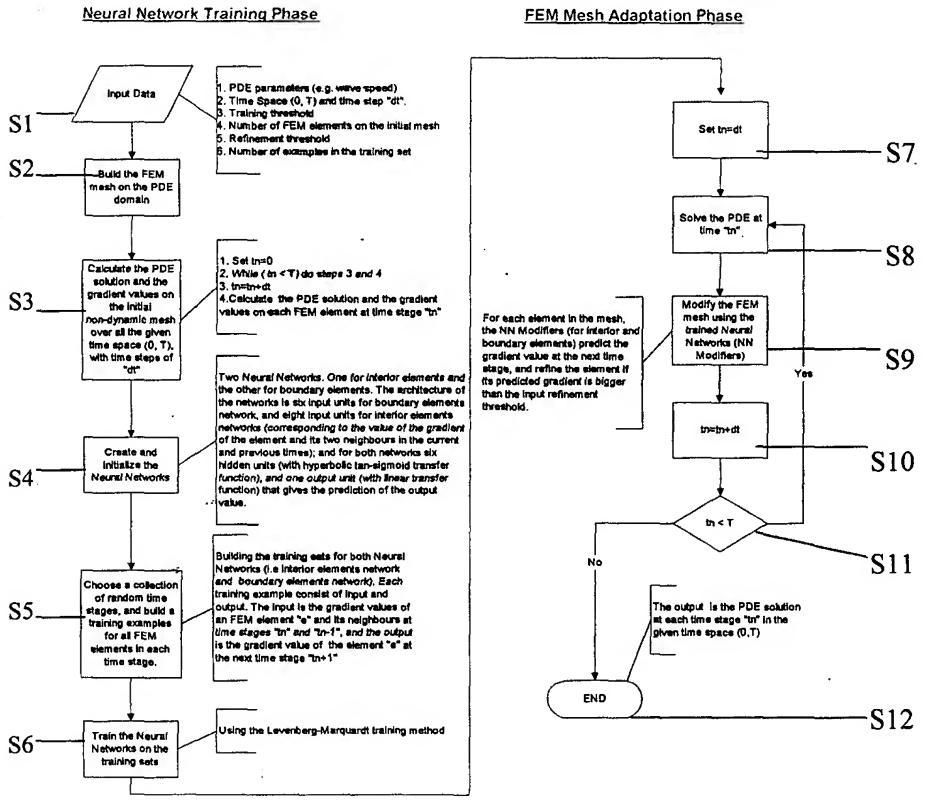
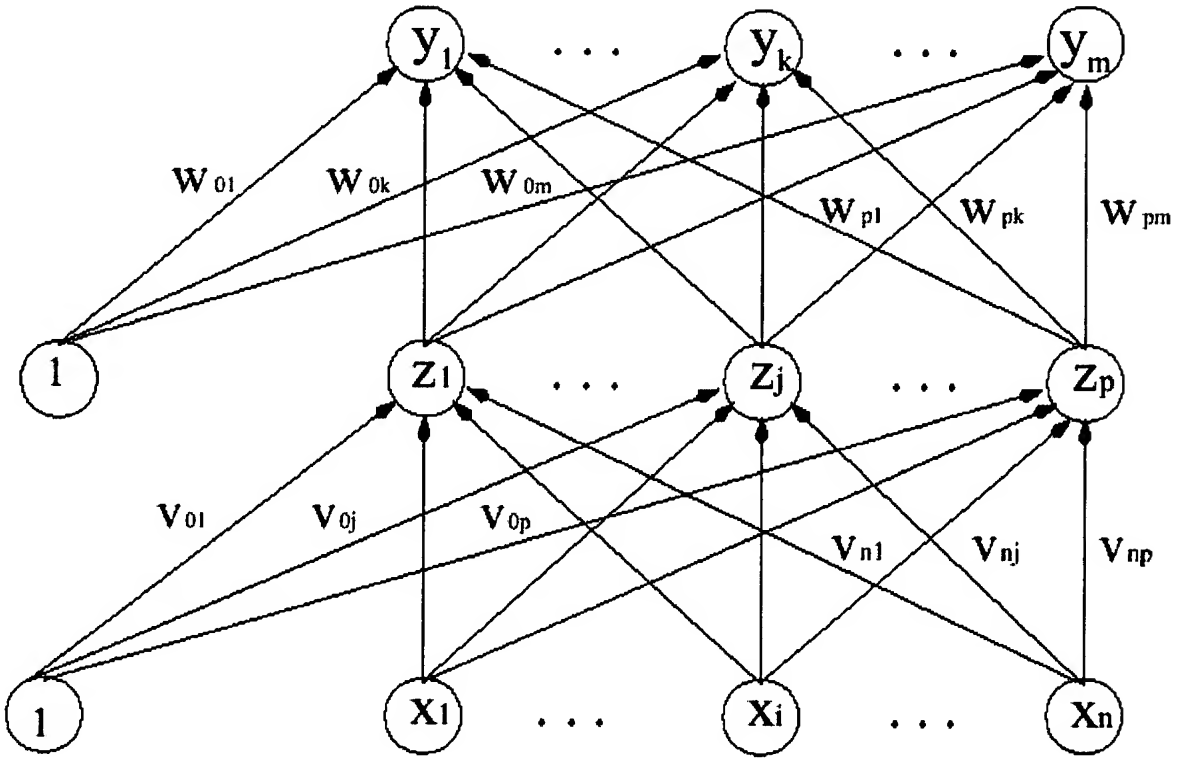


Fig. 4


y1
yk
ym
W 01
W 0k
W 0m
W p1
W pk
W pm
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Z1
Zj
Zp
V 01
V 0j
V 0p
V n1
V nj
V np
1
X1
Xi
Xn

Fig. 2

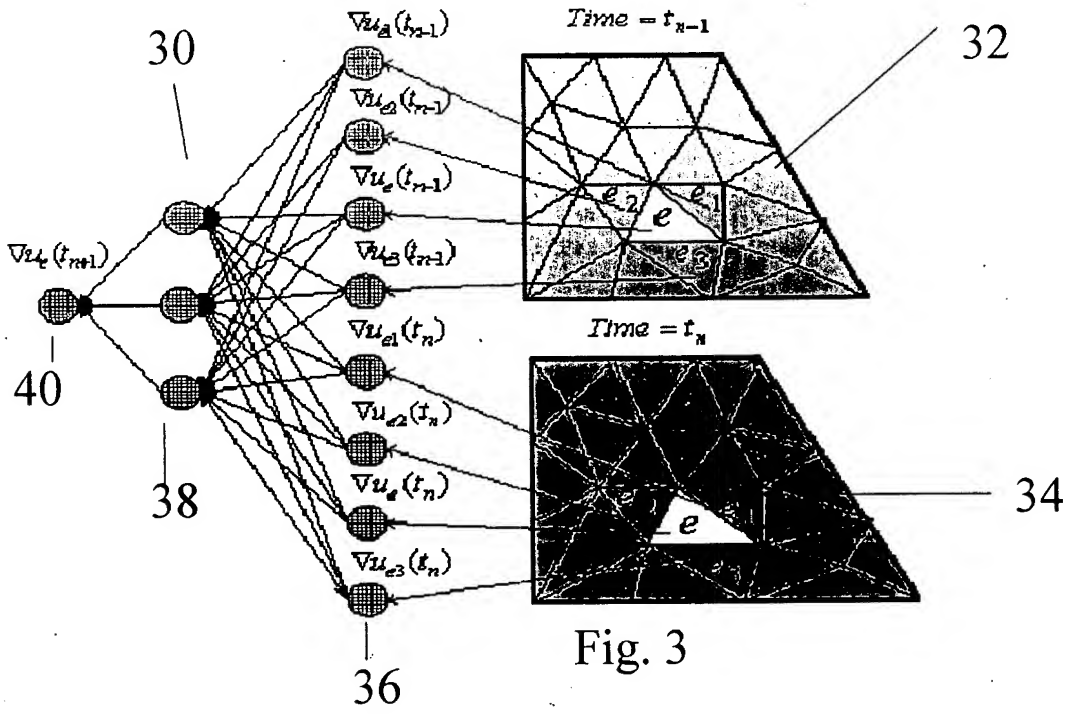


Fig. 3

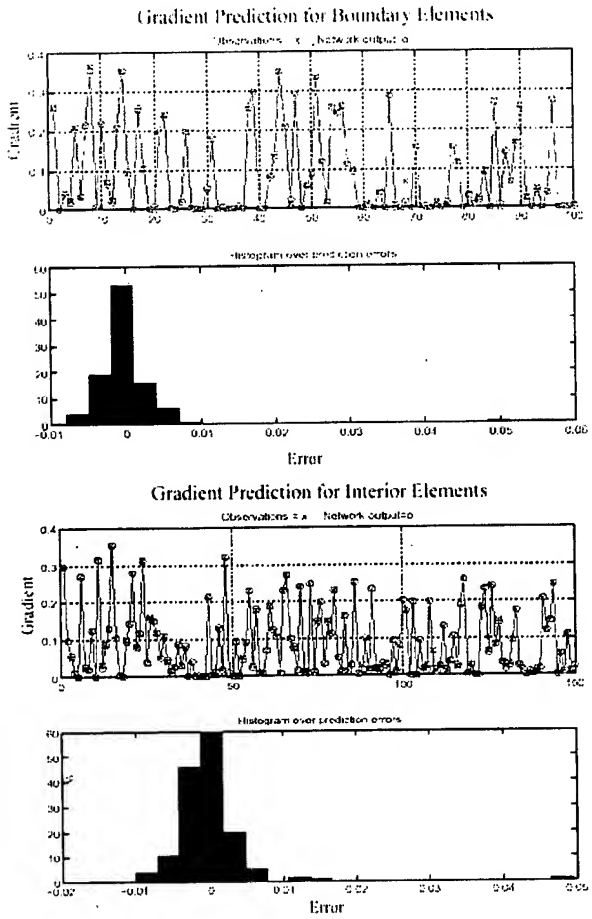

Gradient Prediction for Boundary Elements
Gradient
Error
Gradient Prediction for Interior Elements
Gradient
Error

Fig. 5

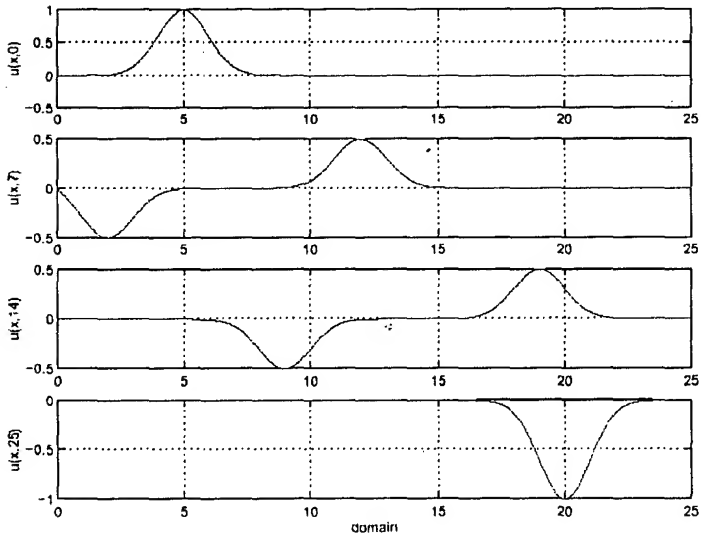


Fig. 6

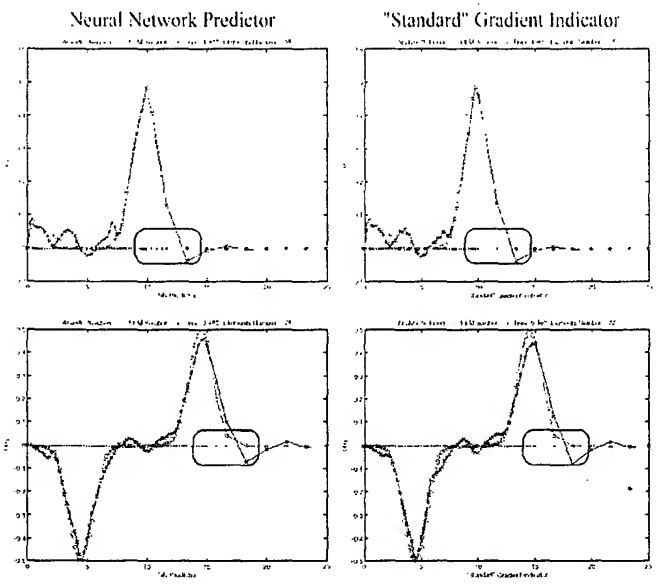


Fig. 7

Fig. 8A

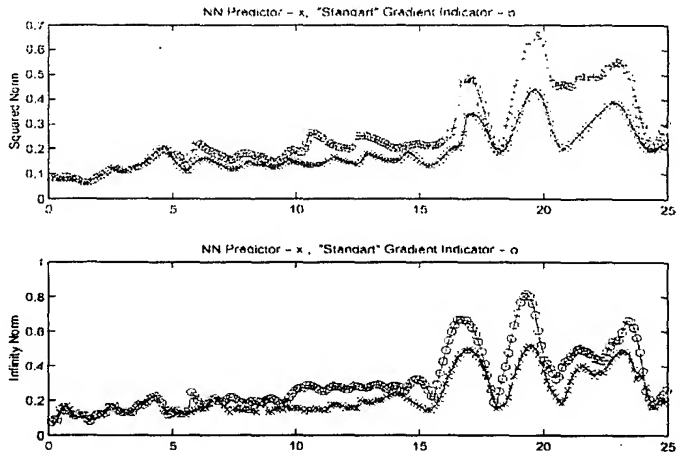


Fig. 8B

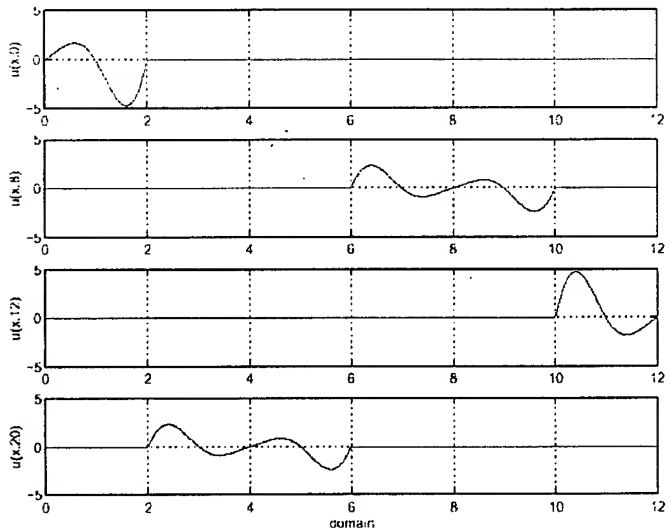


Fig. 9

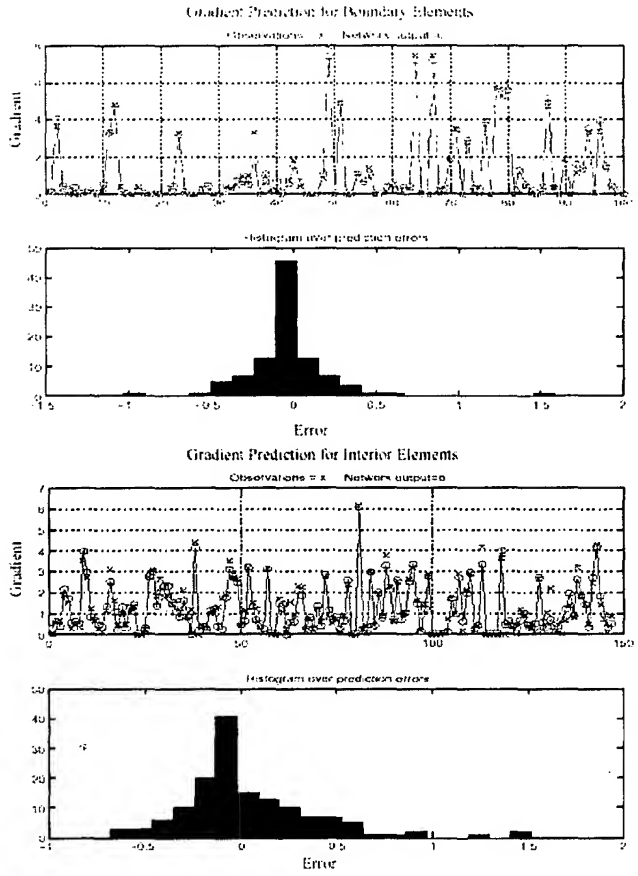


Fig. 10A

Fig. 10B

Fig. 11

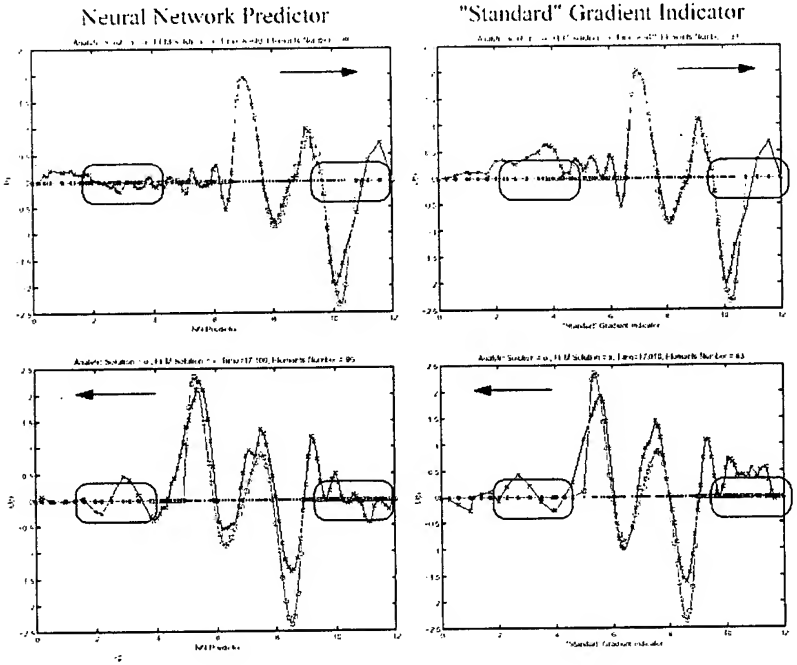


Fig. 12A

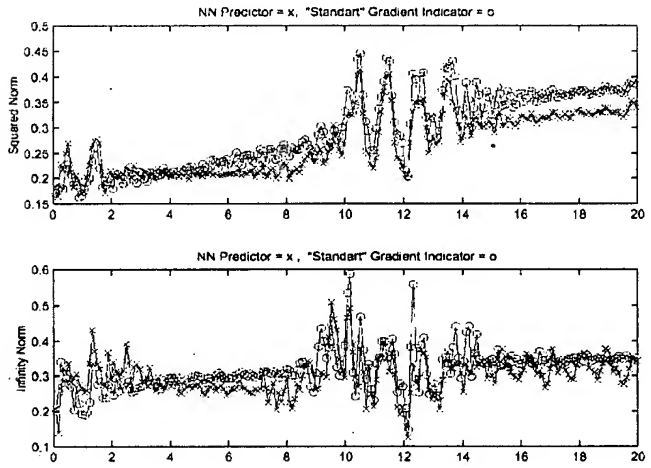


Fig. 12B

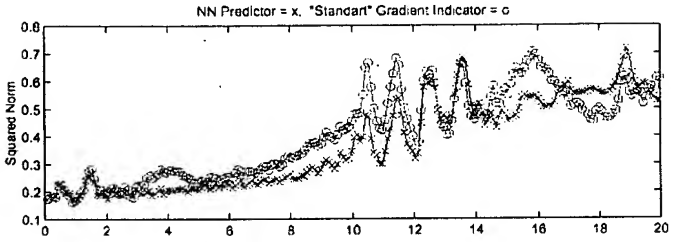


Fig. 13A

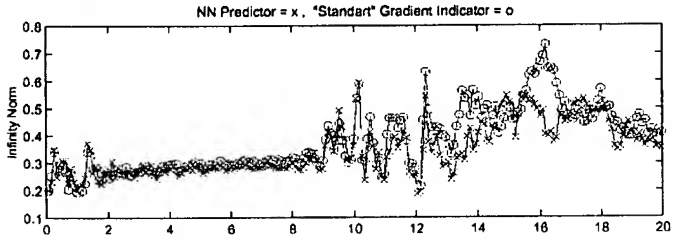


Fig. 13B

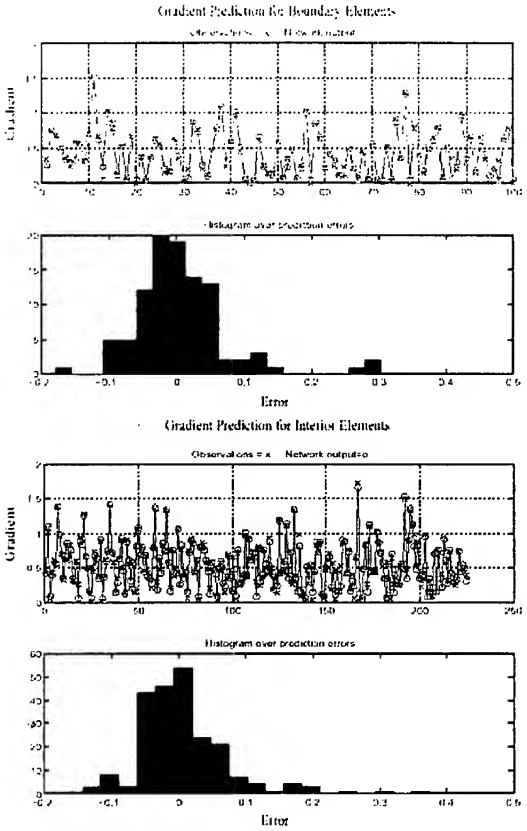
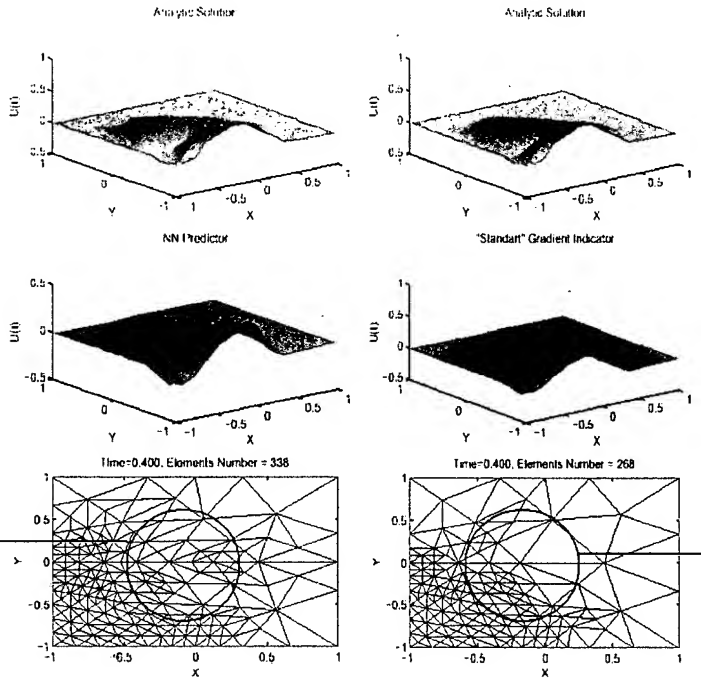

Gradient Prediction for Boundary Elements
Gradient
Error
Gradient Prediction for Interior Elements
Gradient
Error

Fig. 14



150

150'

Fig. 15

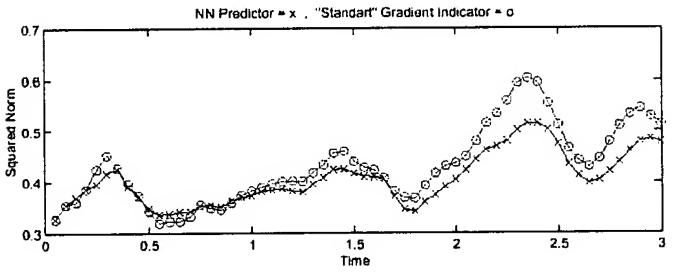


Fig 16A

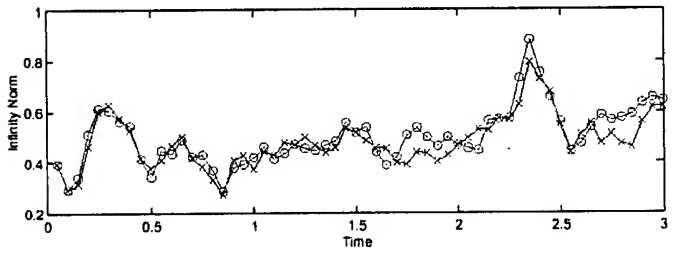


Fig. 16B